FUTURE FISHERIES IMPROVEMENT PROGRAM GRANT APPLICATION

(Please fill in the highlighted areas)
all sections (IA, IB, IC, etc.) must be addressed or the application will be considered invalid

I. APPLICANT INFORMATION

A. Applicant Name: Ladd Knotek – MFWP Fisheries Biologist

B. Mailing Address: 3201 Spurgin Road

C. City: Missoula State: MT Zip: 59804

Telephone: (406) 542-5506 E-mail: lknotek@mt.gov

D. Contact Person: Same as above

Address if different from Applicant:

City: State: Zip:

Telephone: E-mail:

E. Landowner and/or Lessee Name (if other than Applicant): Missoula County Public Works Dept., (Erik Dickson – Rep)

Mailing Address: 6089 Training Drive

City: Missoula State: MT Zip: 59808

Telephone: (406) 258-3772 E-mail: edickson@missoulacounty.us

II. PROJECT INFORMATION*

A. Project Name: Upper LaValle Creek Fish Passage

River, stream, or lake: LaValle Creek (North of Missoula)

Location: Township: 14 N Range: 20 W Section: 12 (SE1/4) 13 (NE1/4)

Latitude: 46.97399 Longitude: 114.07020 *within project (decimal degrees)*

County:

B. Purpose of Project:

Remove two undersized culvert crossings and replace with bridges to enhance upstream passage for stream-resident, genetically pure westslope cutthroat trout.

C. Brief Project Description:

Upper LaValle Creek supports an isolated population of pure westslope cutthroat trout (WCT) within a 4-5 mile reach on private and public lands. The proposed project will replace two neighboring (see map, Attachment IV), undersized culvert crossings with bridges on a public road easement within this reach that limit upstream movement for resident cutthroat trout during high flow periods. New bridges will meet stream simulation criteria, floodplain (100-yr flood) requirements, and county bridge specifications. This goal of the project is to facilitate unobstructed movement and consistent reproduction for this WCT population to help ensure long term persistence. (Note: Expanded project description is in Attachment I)

D. Length of stream or size of lake that will be treated: ~100 ft at two culvert crossings affecting ~ 4-5 miles of stream

E. Project Budget:

Grant Request (Dollars): $ 18,520

Contribution by Applicant (Dollars): $ _____ In-kind $ _____
(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): $ 12,960 In-kind $ 11,671
(attach verification - See page 2 budget template)

Total Project Cost: $ 43,151 (* Does not include large MFWP employee salary contribution)

F. Attach itemized (line item) budget – see template

G. Attach specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support and fish biologist support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete supplemental questionnaire (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).

H. Attach land management and maintenance plans that will ensure protection of the reclaimed area.

III. PROJECT BENEFITS*

A. What species of fish will benefit from this project?:

Stream resident westslope cutthroat trout (non-hybridized population isolate)

B. How will the project protect or enhance wild fish habitat?:

Provide unobstructed upstream fish passage for adult and juvenile cutthroat trout moving within the perennial reaches of upper Lavalle Creek.

C. Will the project improve fish populations and/or fishing? To what extent?:

Project is intended to improve resilience of an isolated, genetically pure population of WCT with high conservation value. Fishing opportunity for stream-resident WCT will likely be improved in the long term, but consistent recruitment to the Clark Fork River is unlikely as the stream is captured by various irrigation systems and heavily influenced by infrastructure downstream of the project reach. Public easement and stream crossings provide unobstructed public access to fish for WCT in the project reach.

D. Will the project increase public fishing opportunity for wild fish and, if so, how?:

The projects occur on a public road easement where anglers can easily and legally enter the stream to fish for wild, stream-resident cutthroat trout. This project is primarily a conservation measure for an isolated WCT population, but it may also enhance recruitment to the Clark Fork River during peak flow events. Future projects may enhance connectivity with Clark fork River without compromising genetic integrity.

E. The project agreement includes a 20-year maintenance commitment. Please discuss your ability to meet this commitment.

Although project bridges occur on an unimproved county road easement and should require minimal maintenance, the new structures are eligible for long-term maintenance by Missoula County as the bridges will improve water quality and ensure safe public access to public lands. The U.S. Forest Service also holds easements and has an interest in using and maintaining the road infrastructure.

F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?:

Undersized culverts installed in the 1980s or earlier. Project will replace culverts with appropriately sized bridges.

G. What public benefits will be realized from this project?:

Improved upstream passage and increased chance of persistence for an important native population of westslope cutthroat trout, a Montana Species of Concern. Improved fishing for stream-resident cutthroat trout and possibly increased recruitment to the Clark Fork River..

H. Will the project interfere with water or property rights of adjacent landowners? (explain):

No

I. Will the project result in the development of commercial recreational use on the site?: (explain):

No

J. Is this project associated with the reclamation of past mining activity?:

No

Each approved project sponsor must enter into a written agreement with the Department specifying terms and duration of the project.

IV. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature: William J Mateb Date: 5/30/17

Sponsor (if applicable):

***Highlighted boxes will automatically expand.**

Mail To: **Montana Fish, Wildlife & Parks**
Habitat Protection Bureau
PO Box 200701
Helena, MT 59620-0701

E-mail To: **Michelle McGree**
mmcgree@mt.gov
(electronic submissions MUST be signed)

Incomplete or late applications will be rejected and returned to applicant.
Applications may be rejected if this form is modified.

*****Applications may be submitted at anytime, but must be signed and received by the Future Fisheries Program Officer in Helena before December 1 and June 1 of each year to be considered for the subsequent funding period.*****

Attachments:

I. Project Description
II. Project Budget
III. Letters of Support from Project Partners
IV. Map of Project Location
V. Typical Bridge Design
VI. Land Management & Maintenance Plans
VII. Photos from Project Site

I. Project Description

LaValle Creek is a second order tributary stream located just north of the International Airport near Missoula. The stream naturally dewaters just above (north of) Interstate 90 for ~10 months each year. During spring runoff, the stream is captured by a series of irrigation canals and discharge apparently never reaches the Clark Fork River. Regardless, a series of physical fish passage barriers also prevent fluvial fish from the Clark Fork River and canals from reaching upper perennial stream reaches.

MFWP sampling surveys over the past 25 years indicate that upper LaValle Creek supports only non-introgressed (genetically pure) westslope cutthroat trout (WCT). The population occupies a ~ 4 mile reach that includes private lands on the valley floor and U.S. Forest Service ownership at higher elevations. This WCT population represents an 'isolate' that will be managed to sustain genetic purity, and the proposed projects are intended to ensure connectivity within the reach they currently occupy.

The upper end of the county road easement (Lavalle Creek Road) contains two very undersized culverts that limit upstream movement during high water conditions (when adults are migrating to spawn) and disrupt natural hydrologic function. Both culverts are ~ 54 inch diameter, while normal bankfull channel width is 10-11 feet. Fortunately, both crossings have limited quantities of fill and are good sites for simple bridge installations. The proposed project involves removal of existing culverts and replacement with wood bridges that meet stream simulation criteria and county bridge specifications. Because upper LaValle Creek road is not maintained by Missoula County, they could not justify contributing funds directly for the project, but are committed to assisting with final bridge designs, access considerations, and any basic long-term maintenance needed to ensure public safety.

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

Both tables must be completed or the application will be returned

WORK ITEMS (ITEMIZE BY CATEGORY)	NUMBER OF UNITS	UNIT DESCRIPTION*	COST/UNIT	TOTAL COST	CONTRIBUTIONS			
					FUTURE FISHERIES REQUEST	IN-KIND SERVICES**	IN-KIND CASH	TOTAL
Personnel* **								
Survey	10	hours	$45.00	$ 450.00		450.00		$ 450.00
Design	16	hours	$90.00	$ 1,440.00		1,440.00		$ 1,440.00
Engineering	20	hours	$90.00	$ 1,800.00		1,800.00		$ 1,800.00
Permitting	16	hours	$45.00	$ 720.00		720.00		$ 720.00
Oversight	40	hours	$90.00	$ 3,600.00		3,600.00		$ 3,600.00
				$ -				$ -
			Sub-Total	$ 8,010.00	$ -	$ 8,010.00	$ -	$ 8,010.00
Travel								
Mileage	200	miles	$0.58	$ 116.00		116.00		$ 116.00
Per diem	5	days	$45.00	$ 225.00		225.00		$ 225.00
			Sub-Total	$ 341.00	$ -	$ 341.00	$ -	$ 341.00
Construction Materials****								
Bridge Brackets	2	Bridges	$3,800.00	$ 7,600.00	7,600.00			$ 7,600.00
Bridge Abutments	2	Bridges	$3,100.00	$ 6,200.00	6,200.00			$ 6,200.00
Bridge Stringers	12	Beams	$120.00	$ 1,440.00		1,440.00		$ 1,440.00
Bridge Decking	2	Bridges	$3,400.00	$ 6,800.00			6,800.00	$ 6,800.00
Rock rip rap	20	yds	$50.00	$ 1,000.00			1,000.00	$ 1,000.00
				$ -				$ -
				$ -				$ -
				$ -				$ -
				$ -				$ -
			Sub-Total	$ 23,040.00	$ 13,800.00	$ 1,440.00	$ 7,800.00	$ 23,040.00
Equipment and Labor								
Haul Components	6	hours	$80.00	$ 480.00		480.00		$ 480.00
Excavator	32	hours	$130.00	$ 4,160.00			4,160.00	$ 4,160.00
Skid-Steer	32	hours	$60.00	$ 1,920.00	920.00		1,000.00	$ 1,920.00
Dump Truck	20	hours	$80.00	$ 1,600.00	1,600.00			$ 1,600.00
Labor - Construction	80	hours	$35.00	$ 2,800.00	1,400.00	1,400.00		$ 2,800.00
				$ -				$ -
			Sub-Total	$ 10,960.00	$ 3,920.00	$ 1,880.00	$ 5,160.00	$ 10,960.00
Mobilization								
Mob/Demob	1	Lump	$800.00	$ 800.00	800.00			$ 800.00
				$ -				$ -
				$ -				$ -
			Sub-Total	$ 800.00	$ 800.00	$ -	$ -	$ 800.00
			TOTALS	$ 43,151.00	$ 18,520.00	$ 11,671.00	$ 12,960.00	$ 43,151.00

025-2017

LaValle Creek fish passage

(Revised 11/28/2016)

OTHER REQUIREMENTS:

All of the columns in the budget table and the matching contribution table MUST be completed appropriately or the application will be invalid. Please see the example budget sheet for additional clarification.

*Units = feet, hours, inches, etc. Do not use lump sum unless there is no other way to describe the costs.

**Can include in-kind materials. Justification for in-kind labor (e.g. hourly rates used for calculations). Describe here or in text.

Reminder: Government salaries cannot be used as in-kind match

***The Review Panel suggests that design and oversight costs associated with a proposed project not exceed 15% of the total project budget. If design and oversight costs are in excess of 15%, applications must include a minimum of two competitive bids for the cost of undertaking the project.

****The Review Panel recommends a maximum fencing cost of $1.50 per foot. Additional costs may be the responsibility of the applicant and/or partners.

MATCHING CONTRIBUTIONS (do not include requested funds)

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL	Secured? (Y/N)
West Slope Chapter Trout Unlimited	$ -	$ 12,960.00	$ 12,960.00	Y
Trout Unlimited - National	$ 11,671.00	$ -	$ 11,671.00	Y
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
	$ -	$ -	$ -	
TOTALS	$ 11,671.00	$ 12,960.00	$ 24,631.00	

WestSlope Chapter
Trout Unlimited

November 21, 2016

Dear Future Fisheries Panel Members and Review Team:

As President of the WestSlope Chapter of Trout Unlimited and our over 850 members, it gives me great pleasure to confirm that our chapter will contribute $30,000 for the planned enhancement work on streams in the Missoula area, including projects on Mill Creek, LaValle Creek, and Marshall Creek. We believe these projects are vital to improving spawning sites and juvenile fish survival and will lead to healthier and more abundant fish in the Clark Fork drainage. Importantly, these projects will also contribute to improving conditions for native west slope cutthroat, a species in particular that needs help to recover and thrive.

The WestSlope Chapter of Trout Unlimited supports these projects and hopes you will strongly consider requests for matching funds that will facilitate implementation. This is important work and part of our chapter's on-going financial support of critical stream enhancement in the Missoula area. We look forward to helping with future projects as well.

If you need further information please don't hesitate to contact me at 406 327-9990 or mark@makdirect.net

Thank you,

Mark Kuipers, President
WestSlope Chapter of Trout Unlimited
PO Box 7165
Missoula, MT 59807
406 327-9990

MISSOULA COUNTY

ENGINEERING DIVISION
6089 TRAINING DRIVE
MISSOULA, MT 59808

Erik K. Dickson, P.E.
edickson@missoulacounty.us
Voice (406) 258-3772
Fax (406) 258-4864

November 16, 2016

Ladd Knotek
Montana Fish, Wildlife & Parks
3201 Spurgin Road
Missoula, MT 59804

Re: LaValle Creek culverts

Dear Mr. Knotek:

The portion of LaValle Creek Road where two culverts are proposed to be replaced is a dedicated County road easement. As a County road easement with a non-maintained road, the public or other government agencies do have the right to use that easement including building and maintaining roads or stream crossing structures. The County's only interest in that easement's use is ensuring that any construction or maintenance does not block access or create a safety hazard. Therefore, any work that is proposed to be completed in the easement needs to be reviewed and approved by Public Works.

We support this project and will assist where possible, but we unfortunately cannot allocate funds for this portion of road or its stream crossing structures given the fact that it is a non-maintained road. I hope the application is successful and if there is any additional information or support that we can provide, please let me know.

Sincerely,

Erik K. Dickson, P.E.
County Engineer

Paul Parson, PE
Middle Clark Fork Restoration Coordinator

November 29, 2016

Future Fisheries Improvement Program
c/o Michelle McGree
Montana Fish, Wildlife & Parks
P.O. Box 200701
1420 E. 6th Avenue
Helena, MT 59620-0701

RE: FWP Funding Request for the Lavelle Creek Culvert Replacement and Mill Creek Fish Ladder Replacement

Dear Panel Members:

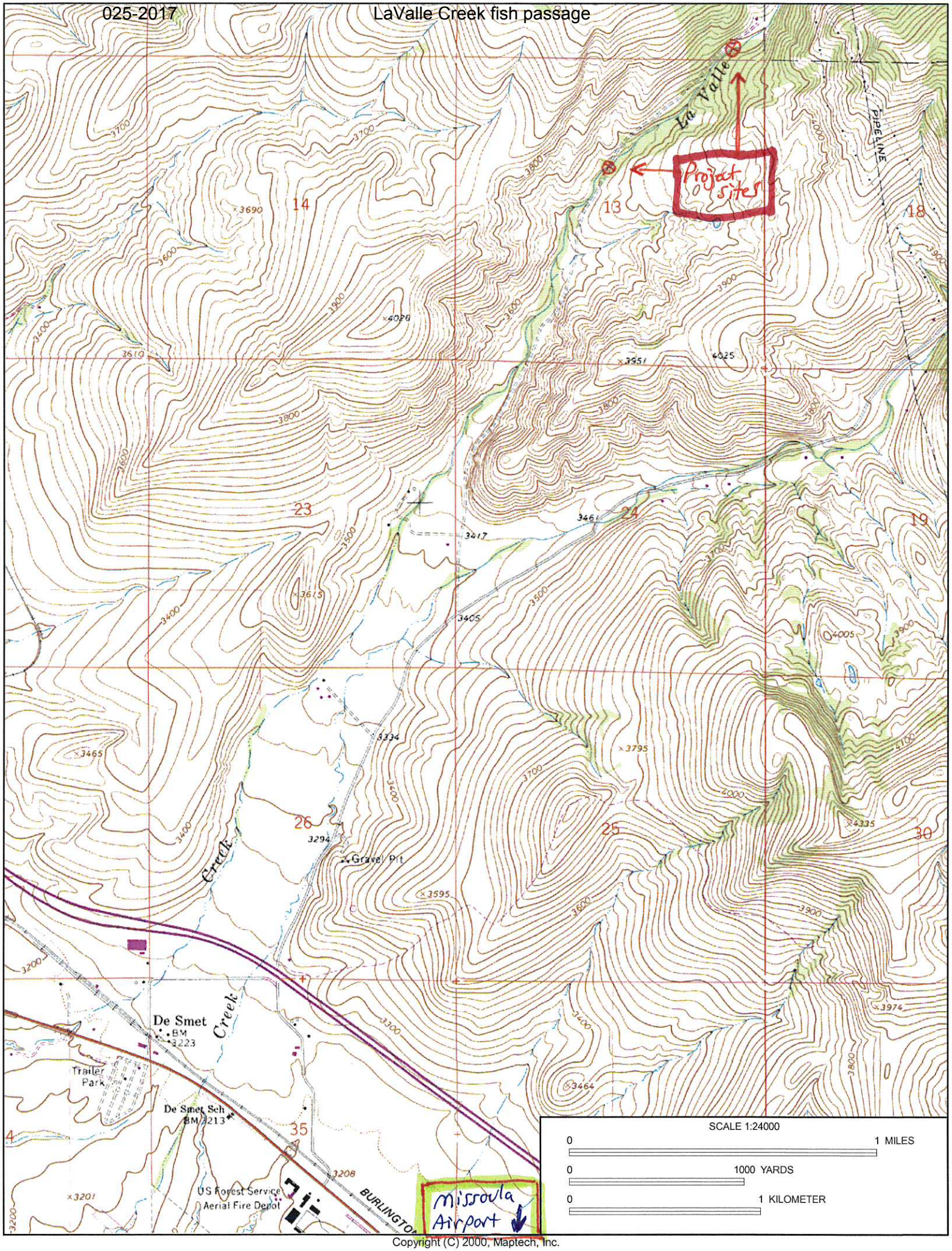
I am writing to express my full support of Montana Fish Wildlife and Parks application for funding two important tributary improvement projects in the Middle Clark Fork Drainage; Lavalle Creek culvert replacement and the Mill Creek Fish Ladder replacement.

Trout Unlimited is looking forward to the opportunity to provide technical design guidance for both projects along with project management and construction oversight assistance. Trout Unlimited has successfully worked with Ladd Knoteck on similar projects and continues to maintain an effective collaborative relationship.

Sincerely,

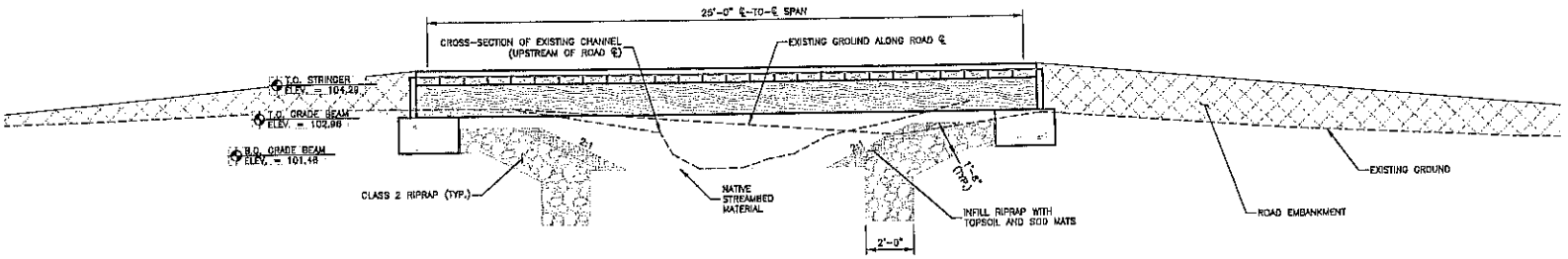
Paul Parson, PE

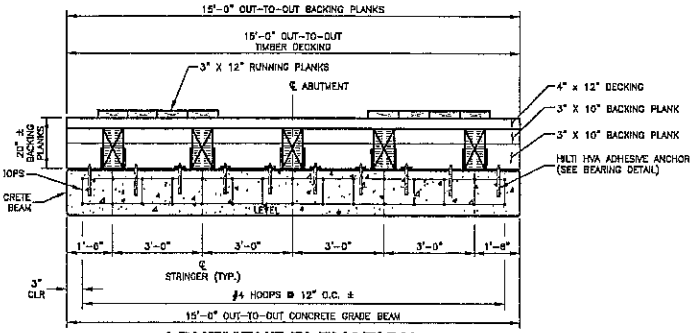
111 N. Higgins Ave, Suite 500 – Missoula, MT 59802
T: (406) 543-1192 | C: (406) 218-8635 | pparson@tu.org | www.tu.org



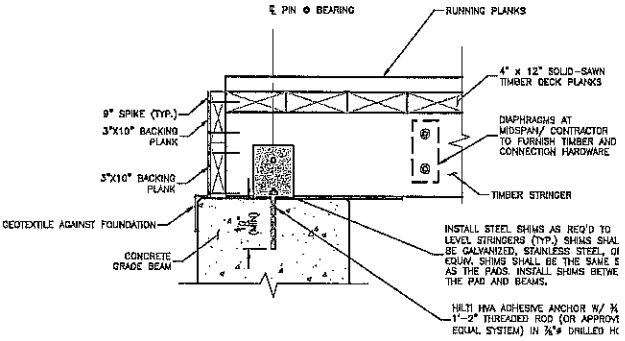
Bridge Detail Typicals

Final Designs will be completed in spring 2017 in conjunction with Missoula County bridge engineer

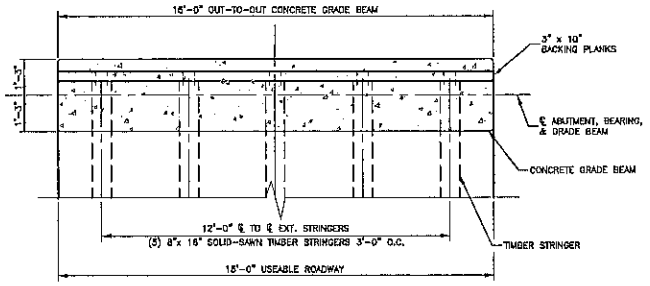


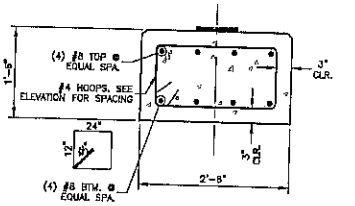


ABUTMENT ELEVATION
NOT TO SCALE



BEARING DETAIL
NOT TO SCALE

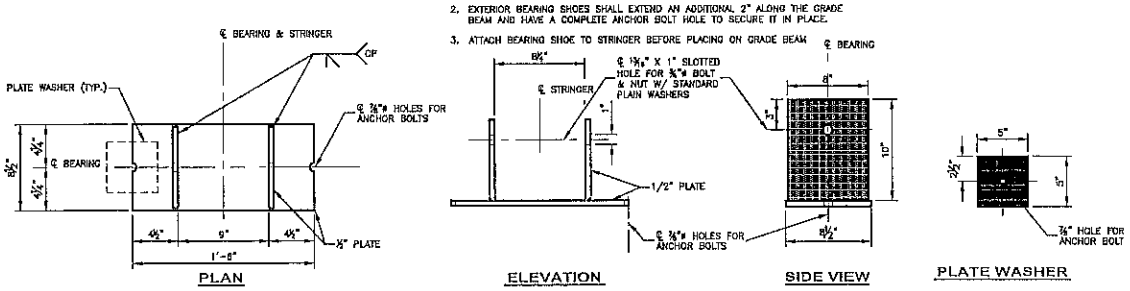




FOUNDATION DETAIL
NOT TO SCALE

NOTES:

1. PLACE PLATE WASHER ON TOP OF CONSECUTIVE BEARING SHOES TO HOLD BEARING SHOES IN PLACE.
2. EXTERIOR BEARING SHOES SHALL EXTEND AN ADDITIONAL 2" ALONG THE GRADE BEAM AND HAVE A COMPLETE ANCHOR BOLT HOLE TO SECURE IT IN PLACE.
3. ATTACH BEARING SHOE TO STRINGER BEFORE PLACING ON GRADE BEAM



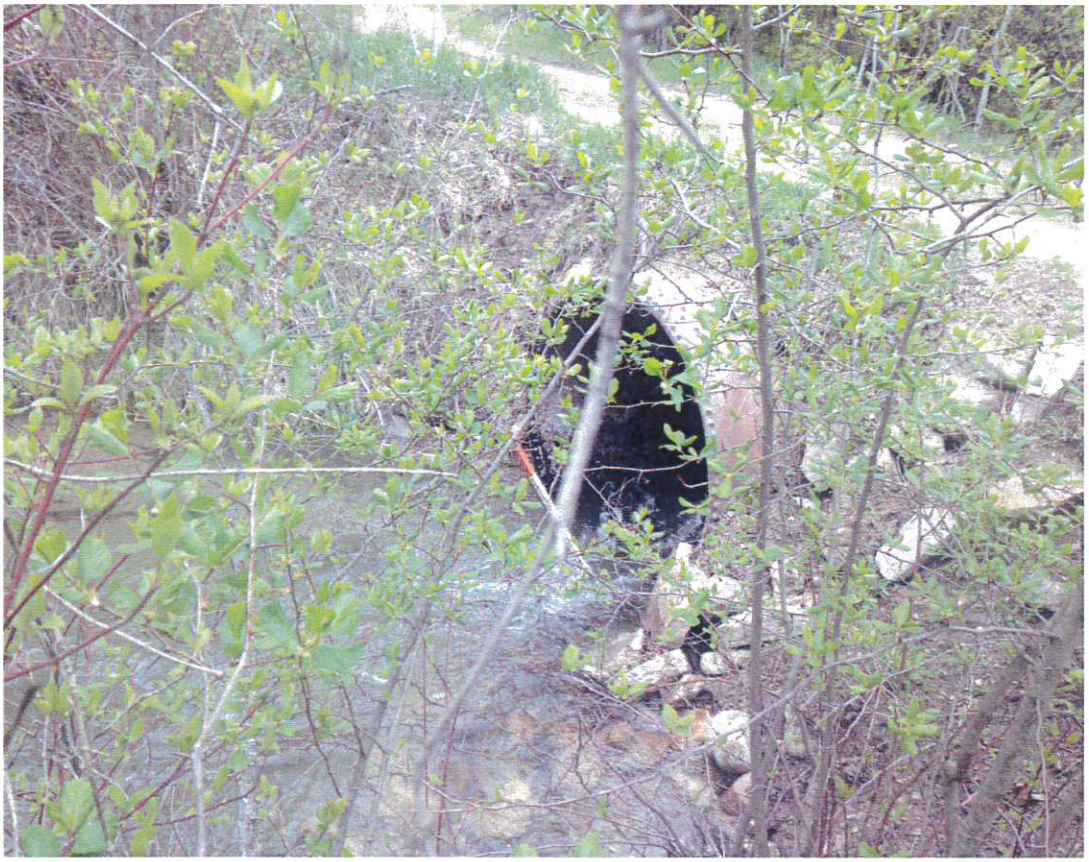
BEARING SHOE DETAIL
NOT TO SCALE

ITEM	QUANTITY
8"x16"x26'-0" SS STRINGER	5
15'-0"x12"x4" DECKING	26
26'-0"x12"x3" RUNNING PLANKS	8
15'x10"x3" BACKING PLANKS	4
2'-6"x1'-6"x16" FOUNDATION	2
BEARING SHOE	10
CONNECTION HARDWARE	VARIES
CLASS II RIPRAP	20 CY
GEOTEXTILE	75 S.F.

VI. Land Management & Maintenance Plans

Both stream crossing sites occur on a public road right-of-way and will become the responsibility of Missoula County Public Works after construction. Although this is a not a regularly maintained road, Missoula County recognizes that maintenance measures are required to protect water quality, ensure safe for public use and provide public access to public lands and waterways.

Photos of LaValle Creek Project Sites



Lower Crossing Site

Upper Crossing Site